

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**



Applicant: Pamela Boyer

Serial No.: 09/639,055 Group Art Unit 3634

Filed: August 5, 2000 Examiner: A. Chin Shue

For: "Safety Harness" Date: March 4, 2004

To the Honorable Commissioner
of Patents and Trademarks
Washington, D.C. 20231

Box: Appeals

APPEAL BRIEF

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Sir:

This is an Appeal Brief following Notice of Appeal mailed by the applicant on January 14, 2002 and received in the USPTO on February 13, 2002.

1. REAL PARTY IN INTEREST

The applicant Pamela Boyer is the real party in interest in this Appeal.

2. RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences.

3. STATUS OF CLAIMS

Claims 1 - 4, 22 and 23 are pending in the application. Claims 1 – 4, 22 and 23 were finally rejected. Claims 1 – 4, 22 and 23 are appealed.

4. STATUS OF AMENDMENTS

An amendment to obviate Section 112, second paragraph rejection was filed subsequent to final rejection. Claims 1 and 3 were amended. Claims 22 and 23 were added. In the Advisory

Action of November 6, 2001, Examiner Alvin C. Chin-Shue indicated that the amendments subsequent to filing rejection will be entered.

5. SUMMARY OF INVENTION

A safety harness for absorbing shock in case of an accidental fall from an elevated structure. The harness (Figs. 1, 3-5) has two shoulder straps (24, 26) that cross in the back portion (22) of the harness (12) while sliding through a lanyard securing member, or D-ring. (Page 5, lines 16 – 20). The shoulder straps continue after being sewn to the belt in the back side of the harness and form leg straps (30, 32). Each shoulder strap comprises a distinct resilient stretchable portion (40, 42), while the rest of the harness is formed from a flexible non-resilient webbing. (Page 5, lines 21-22, Page 6, lines 3 - 6 and Claim 1). The resilient portions in the shoulder straps provide more comfortable positioning and increase the shock-absorbing properties of the safety harness (page 6, lines 1-2). The resilient portions are located adjacent an apex of each shoulder strap (Fig. 3-5 and Claim 2).

A resilient shock-absorbing suspender assembly (14) is attached to the shoulder straps and to the lanyard securing member to provide a three-point suspension means (Figs. 1 and 9). The suspender assembly has two branches, the front ends of which are attached to the shoulder straps, while the back ends of which are attached to the D-ring (Fig. 1 and Claim 3). Each shoulder strap terminates at the belt (Figs. 3-5 and Claim 4). The front ends are fixedly attached to the shoulder straps below the resilient inserts (Figs. 1, 9 and Claims 22, 23).

6. ISSUES

- I. Whether rejection of Claims 1-4, 22 and 23 under 35 USC 112, second paragraph is proper, where the claims recite the structure of the harness in relation to the

user's body, and where the Specification and the drawings explain in detail the location of critical elements of the harness.

- II. Whether Claims 1 – 4, 22 and 23 are obvious in view of the cited prior art, where the cited prior art, singly or in combination, fails to disclose, teach or suggest provision of a distinct resilient portion at the apex of each of the shoulder straps.

7. GROUPING OF CLAIMS

In the Final Action and in the Advisory Action, Examiner grouped Claims 1-4, 22 and 23 together. The applicant believes that Claims 2, 3, 22 and 23 contain independently patentable subject matter because Claim 2 recites provision of an elastomeric resilient portion adjacent an apex of each shoulder strap; Claim 3 recites provision of a permanent attachment of the resilient suspender assembly to the shoulder straps; Claim 22 recites that the front ends of the first and second branches of the resilient suspender assembly are fixedly attached specific locations on the shoulder straps; Claim 23 recites that the front ends of the resilient suspender assembly are stitched to respective shoulder straps. For reasons explained in more detail in Part 8 of the Appeal Brief, the applicant submits that these features are not disclosed, taught or suggested by any of the cited prior art references.

8. ARGUMENT

I. Rejection Under 35 USC 112, Second Paragraph.

Claims 1 – 4, 22 and 23 were rejected under 35 USC 112, second paragraph. It is the Examiner's position that positively limiting the harness with respect to the shoulder level, shoulder and back of a user, as recited in Claim 1, renders the claims indefinite allegedly because the applicant failed to particularly point out and distinctly claim the subject matter which the applicant regards as her invention.

The appellant respectfully disagrees and submits that full support to the claimed language is found in the Specification and the drawings as originally filed. MPEP 2173.02 provides:

The essential inquiry is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed not in a vacuum, but in light of:

- (A) the content of the particular application disclosure;
- (B) the teachings of the prior art; and
- (C) the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

The instant invention relates to a safety harness to be worn by a human. One of ordinary skill in the art is expected to review the claims in light of the specification. MPEP 2173.05(b). In the instant case, the application disclosure, including the specification and the drawings define the elements of a harness in relation to the human body parts, such as shoulder straps, leg straps, waist belt, etc. These definitions are conventional in such type of patent claim language. See, for instance, Claim 1 of patent No. 5,531,292 of record in this case; Claim 13 of patent No. 5,487,444 (the primary reference). The claim interpretation that would be given to the elements of Claim 1 will be easily understood by persons having the ordinary level of skill in the art of safety harnesses, as the terms relate to common designations (shoulder level, waistline of the user). For these reasons, it is believed that the rejection of Claim 1 under 35 USC 112, second paragraph is improper.

Claims 2, 3, 4, 22 and 23 do not have such limitations and should be independently patentable under 35 USC 112, second paragraph.

II. Rejection Under 35 USC 103(a)

Claims 1 - 4, 22 and 23 were rejected under 35 USC 103(a) as being unpatentable over Dennington in view of Cox. It is the Examiner's contention that "Dennington shows the claimed harness with the exception of the shoulder straps having resilient portions. Cox in fig. 4b shows a harness having shoulder straps having resilient portions to prevent fatigue of a wearer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shoulder straps of Dennington to comprise elastic portions as claimed to prevent fatigue of a wearer."

The Appellant respectfully disagrees and submits that neither the primary nor the secondary references, taken alone or in combination, define the invention as recited in Claim 1. Obviousness is a legal question based on underlying factual determinations. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1566, 1 USPQ2d 1593, 1596 (Fed. Cir. 1987). Here, the primary reference teaches a harness, including shoulder straps, of conventional construction (col. 2, lines 65-66), made from leather, nylon webbing, or other strong, flexible material (col. 3, lines 1-3). As admitted by the Examiner, Dennington does not disclose provision of resilient stretchable shoulder straps.

The secondary reference of Cox discloses shoulder straps made in their entirety of a composite material - a section of an elastic material is sewn into a strap fabricated from conventional, non-elastic material, such nylon and/or polyester. See, col. 4, lines 61 - 67, Claims 1, 10.

The composite material of Cox will invariably react differently to loads imposed by a sudden fall on the shoulder straps. The extension of the composite material shoulder straps of Cox supporting the full weight of a user will not be similar to the extension afforded by a short

resilient segment at the apex of the shoulder strap afforded to the user by the design of the present invention.

The present invention discloses a three-section shoulder strap: anterior portion from the waist up is made of non-stretchable material, the second portion that extends over the shoulders is made stretchable and resilient, and a third posterior portion is non-stretchable. Such arrangement is not shown, suggested or described in any of the prior art references cited by the Examiner, singularly or in combination.

Even assuming, for the sake of an argument, that a safety harness designer would substitute the non-stretchable shoulder straps of Dennington with the composite material shoulder straps of Cox. Even then the harness designer will not receive the same benefits of the partially stretchable shoulder straps as afforded by the instant invention and claimed in Claim 1.

Moreover, obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor. *W. L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1551, 1553, 220 USPQ 303, 311, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). This is an illogical and inappropriate process. *Sensonics, Inc. v. Aerosonic Corp.*, 81 F.3d 1566, 38 USPQ2d 1551 (Fed. Cir. 1996). The invention must be viewed not after the blueprint has been drawn by the inventor, but as it would have been perceived in the state of the art that existed at the time the invention was made. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985).

Here, the state of the art teaches either totally non-stretchable or composite material harnesses. Nothing in the primary reference would suggest to the safety harness designer to add a stretchable element to non-stretchable straps, especially, if that harness is provided with the elastomeric cord assembly, as suggested by element 18 of Dennington.

For these reasons, it is believed that Claim 1 is allowable.

Claim 2 recites provision of an elastomeric resilient portion adjacent an apex of each shoulder strap. Neither Dennington, nor Cox suggest, teach or show such arrangement. For this reason, it is believed that Claim 2 contains allowable subject matter.

Claim 3 recites permanent attachment, such as by sewing, of the resilient suspender assembly to the shoulder straps. Cox does not disclose provision of an elastomeric suspender assembly. Therefore, the detail analysis below addresses the primary reference of Dennington only.

Dennington does not disclose provision of a resilient suspender assembly that is fixedly attached to the shoulder straps. As shown in Fig. 6 and described in Col. 7, lines 36 - 67 and col. 8, lines 1 - 6, Dennington employs an anterior D-ring 62 positioned and attached to the shoulder straps 36 and 38. A second pair of upper D-rings 104 is provided on the shoulder straps 36, 38 in a position above and posterior from the D-ring 62. Before the user puts on a harness, each anterior end 82 of the cord 68 is detached from the D-ring 62. The anterior end 82 is then threaded through the corresponding upper D-ring 104, and is reattached to the corresponding anterior D-ring 62.

Therefore, Dennington discloses a device, where the elastomeric suspender assembly is not fixedly, non-detachably attached to the shoulder straps. Each time a user puts on a harness of Dennington, the suspender assembly is threaded through the D-rings again. Such arrangement creates an undesirable weak link in the harness assembly. The present invention obviates this disadvantage by stitching the suspender assembly to the shoulder straps, below the elastomeric portions of the shoulder straps.

In equating the function of sewing to the concept of permanent, not detachable connection between the suspender and the harness, the Examiner erred and impermissibly used hindsight to arrive at the claimed invention. See *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983) ("To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.").

For these reasons, it is believed that Claim 3 contains allowable subject matter.

Claim 4 recites that each shoulder strap terminates at the belt. Cox does not provide for a waistline belt. Therefore, the detail analysis below addresses Dennington only.

Dennington's shoulder straps extend, at least at the front, below the belt and connect to the leg straps (see, Fig. 1-3). The shoulder straps of the instant harness are sewn, in the front and back, to the waist belt. Such structure is not shown by Dennington. When the harness of Dennington becomes subject to the shock of a sudden fall, the load will be transferred directly from the shoulder straps to the leg straps, at least at the front. Such design is different from the instant invention.

For these reasons, it is believed that Claim 4 contains allowable subject matter.

Claim 22 recites that the resilient harness assembly is attached to the shoulder straps below the resilient portion. Since neither Cox nor Dennington have such multi-portion shoulder straps they do not and cannot provide for the resilient harness to be secured in any particular place on the shoulder strap. Besides, as set forth above, Cox does not provide for a flexible suspender and Dennington does not provide for a fixed connection of the flexible suspender to the shoulder straps.

For these reasons, it is believed that Claim 22 contains allowable subject matter.

Claim 23 recites that the front ends of the resilient suspender branches are stitched to the shoulder straps. As set forth above, Cox does not teach provision of a resilient suspender assembly and Dennington does not provide for a fixed connection between the flexible suspender assembly and the shoulder straps.

For these reasons, it is believed that Claim 23 contains allowable subject matter.

In conclusions, the Appellant submits that there is no suggestion in the prior art that the teachings of the primary and secondary references should be combined in a manner recited in the instant application. It is well established that there must be some logical reason apparent from the evidence of record that would justify a combination or modification of references. *In re Regel*, 188 USPQ 132 (CCPA 1975). The question is whether the prior art taken as a whole would suggest the claimed invention to one of ordinary skill in the art. Therefore, even if all elements of a claim are disclosed in various prior art references, the claimed invention taken as a whole cannot be said to be obvious without some reason given in the prior art why one of ordinary skill in the art would have been prompted to combine the teachings of the cited references to arrive at the claimed invention. See, also *In re Hershler*, 591 F.2d 693, 200 USPQ 711 (CCPA 1979). If the only suggestion came from the applicant's own specification - *prima facie* case of obviousness cannot be established. *In re Jansson*, 609 F.2d 996, 203 USPQ 976 (CCPA 1979).

In view of the above, reconsideration of the rejection of Claims 1 – 4, 22 and 23 under 35 USC 112, second paragraph and 35 USC 103(a) and allowance of Claims 1-4, 22 and 23 is respectfully requested.

Please charge Deposit Account No. 11-0260 of the undersigned for the required fee. This Appeal Brief is submitted in triplicate.

Respectfully submitted,



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APPENDIX

Claims involved in the appeal:

1. A safety harness, comprising:

a body harness assembly positionable on a user's body, the body harness assembly comprising a left shoulder strap and a right shoulder strap, said shoulder straps crossing in a back side of the body harness, while sliding through a lanyard securing member;

a resilient suspender assembly having a first branch and a second branch, a front end of the first branch being fixedly attached to the left shoulder strap, a front end of the second branch being fixedly attached to the right shoulder strap, a back end of the first branch and a back end of the second branch being fixedly attached to the lanyard securing member positioned centrally with respect to the left shoulder strap and the right shoulder strap on the back side of the body harness;

said left shoulder strap and said right shoulder strap each having a first non-resilient portion configured to extend from about a waistline of a user to about a shoulder level of the user, a second resilient stretchable portion co-extensively fixedly attached to the first portion and configured to extend over a shoulder of the user and a third non-resilient portion co-extensively fixedly attached to the second portion and configured to extend along a back of the user to about the waistline of the user .

2. The device of Claim 1, wherein each of said second portions of said left shoulder strap and said right shoulder strap is an elastomeric resilient portion located adjacent an apex of the shoulder strap.

3. The device of Claim 1, wherein said first branch and said second branch of the suspender assembly is sewn to said left shoulder strap and said right shoulder strap respectively.

4. The device of Claim 1, wherein said body harness further comprises a belt for encircling the user's waist, and wherein each of said shoulder straps terminates at said belt.

22. The device of Claim 1, wherein said front end of the first branch is fixedly attached to the left shoulder strap below said second portion and wherein said front end of the second branch is fixedly attached to the right shoulder strap below said second portion.

23. The device of Claim 22, wherein said front end of the first branch is stitched to the left shoulder strap and the front end of the second branch is stitched to the left shoulder strap and to the right shoulder strap.